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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/646,644	08/22/2003	Daniel R. Dorrance	HE 8711US	9784
1688 7590 10/18/2007 POLSTER, LIEDER, WOODRUFF & LUCCHESI 12412 POWERS COURT DRIVE SUITE 200 ST. LOUIS, MO 63131-3615			EXAMINER CHAWAN, SHEELA C	
			ART UNIT 2624	PAPER NUMBER
			MAIL DATE 10/18/2007	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/646,644	DORRANCE ET AL.	
	Examiner	Art Unit	
	Sheela C. Chawan	2624	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02 August 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-11 is/are pending in the application.
- 4a) Of the above claim(s) 12-23 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-11 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Amendment

1. Applicant's amendment filed on 8/2/07 has been entered and made of record.
Claim 12-23 has been withdrawn.
Claims 1-11 are pending in the application.

Response to Arguments

2. Applicant's arguments filed on 8/2/07 have been fully considered but they are not persuasive.

Election/Restrictions

3. Claims 12-23 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected invention, there being no allowable generic or linking claim. Election was made without traverse, filed 2/28/07.

Claim Rejections - 35 USC § 112

4. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 1-11 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter, which was not described in the specification in such a way as to reasonably convey to

one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Specification fails to describe the "movable" vehicle service apparatus as claimed in the independent claim 1, 4, 8 and 10.

The specification, on page 13, line 1, briefly describes cameras, which are removable. This does not clearly define that vehicle service apparatus is movable. How it is explained in the disclosure? and where is the support in the specification. Please explain.

5. In the remark, applicants have argued in substance that:

1. Murray et al. reference fails to disclose a "movable" vehicle service apparatus which is "separate from the vehicle wheel alignment system", and further fails to disclose that images of optical targets acquired by a camera on the movable vehicle service apparatus are utilized by the vehicle wheel alignment system computer to "guide the placement of the movable vehicle service apparatus relative to the vehicle".

In the reply, the examiner states the following.

As to point 1, with respect to the art rejection, the examiner has carefully considered applicant's argument, but firmly believes the cited reference to reasonably and properly meet the claimed limitation. In response to applicants' arguments, on page 12, line 6. The examiner does not agree with the remarks that Murray is relied on. However, applicant is reminded that the claim language is given its broadest reasonable interpretation and applicant cannot rely upon the features from the specification brought out in the claims because the specification is not the measure of the invention but

claims are Therefore, Murray does teach this limitation, as best understood by the examiner "movable" vehicle service apparatus (see fig 3, column 3, lines 14- 47, column 6, lines 13-60). Applicant is reminded that vehicle service apparatus on page 12, line 7 "separate from the vehicle wheel alignment system", is not in the claim and also see on page 12, line 10-11 "guide the placement of the movable vehicle service apparatus relative to the vehicle", is not present in the claim.

Regarding claim 4 same arguments is applicable as to claim 1.

Regarding claim 8, same argument is applicable as to claim 1.

Regarding claim 10, same argument is applicable as to claim 1.

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-11 are rejected under 35 U.S.C. 102(e) as being anticipated by Murray et al., (US.6,728,609 B2).

As to claim 1, Murray discloses an improved machine vision vehicle wheel alignment system (fig 3, 102) having at least one camera (fig 3, 112), a computer operatively coupled to the at least one camera (fig 3, 300), the computer configured with vehicle wheel alignment software (fig 3, 300), and at least one optical target configured for attachment to a vehicle within a field of view of the at least one camera (abstract), wherein the improvement comprises:

at least one additional camera mounted to a movable (note, fig 3, element 100 corresponds to movable which is position determination system, column 3, lines 14- 47, column 6, lines 13-60) vehicle service apparatus, said at least one additional camera operatively coupled to the computer, said at least one additional camera disposed to include at least one optical target in an associated field of view (fig 3, column 3, lines 14- 47, column 6, lines 13-60); and

wherein said computer is further configured to utilize images of the at least one optical target received from said at least one additional camera to guide the placement of said movable (note, fig 3, element 100 corresponds to movable which is position determination system column 3, lines 14- 47, column 6, lines 13-60) vehicle service apparatus relative to the vehicle (column 3, lines 14-47, column 6, lines 13-60).

As to claims 2 and 5, Murray discloses the improved machine vision vehicle wheel alignment system of Claim 1 wherein said computer is further configured to guide the placement of the vehicle service apparatus relative to a rear thrust line of said

associated vehicle (column 3, lines 53-57).

As to claims 3 and 6, Murray discloses the improved machine vision vehicle wheel alignment system vehicle service apparatus is vehicle collision avoidance

As to claim 4, Murray discloses an improved machine vision vehicle wheel alignment system (fig 3, 102) having at least one camera (fig 3, 110, 112), a computer operatively coupled to the at least one camera (fig 3, 300), the computer configured with vehicle wheel alignment software, and at least one optical target configured for attachment to a vehicle within a field of view of the at least one camera (fig 3, 118, 120, 122, 134), wherein the improvement comprises:

at least one additional optical target configured for attachment to a movable, (note, fig 3, element 100 corresponds to movable which is position determination system, column 3, lines 14- 47, column 6, lines 13-60) vehicle service apparatus within a field of view of the at least one camera (fig 3); and

wherein said computer is further configured to utilize images of the at least one additional optical target received from the at least one camera to guide the placement of said movable, (note, fig 3, element 100 corresponds to movable which is position determination system, column 3, lines 14- 47, column 6, lines 13-60) vehicle service apparatus relative to the associated vehicle (column 6, lines 13-37).

As to claim 7, Murray discloses the improved machine vision vehicle wheel alignment system of Claim 4 wherein a field of view of the at least one camera is adjustable to selectively view the at least one optical target configured for attachment to a vehicle and to selectively view said at least one additional optical target configured for

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attachment to said movable, (note, fig 3, element 100 corresponds to movable which is position determination system, column 3, lines 14- 47, column 6, lines 13-60), vehicle service apparatus (fig 3).

As to claims 9 and 11, Murray discloses the method for aligning a vehicle service apparatus of Claim 8 further including the step of determining the rear thrust line of the associated vehicle from said acquired data representative of the position and orientation of one or more components of the associated vehicle (column 9, lines 28- 47); and

wherein the step of guiding further includes guiding the placement of the vehicle service apparatus relative to said rear thrust line of the associated vehicle (column 9, lines 39 - 47).

7. Claims 8 and 10, are rejected under 35 U.S.C. 102(e) as being anticipated by Jackson et al., (US.6,731,382 B2).

As to claim 8, Jackson discloses a method for aligning movable, which is position determination system) a vehicle service apparatus relative to an associated vehicle utilizing a machine vision vehicle wheel alignment system having at least one camera, a computer operatively coupled to the at least one camera, the computer configured with vehicle wheel alignment software, and at least one optical target configured for attachment to a vehicle within a field of view of the at least one camera (abstract), comprising the steps of:

mounting the at least one optical target on the associated vehicle in the field of view of the at least one camera (column 4, lines 1-20);

acquiring, at the computer, data representative of the position and orientation of one or more components of the associated vehicle from one or more images of the at least one optical target acquired by the at least one camera column 7, lines (1-21, column 9, lines 1-25);

mounting at least one additional camera on the vehicle service apparatus, said at least one additional camera operatively coupled to the computer and having a field of view including the at least one optical target (column 7, lines 1-21, column 9, lines 1-25);

acquiring, at the computer, data representative of the position and orientation of the vehicle service apparatus relative to the associated vehicle, from one or more images of the at least one optical target acquired by said at least one additional camera (column 7, lines 1-21, column 9, lines 1-25); and

guiding the placement of the movable, service apparatus relative to the associated vehicle utilizing said acquired position and orientation of the one or more components of the associated vehicle and said acquired position and orientation of the vehicle service apparatus (column 7, lines 1-21, column 9, lines 1-25).

As to claim 10, see the rejection of claim 8.

Allowable Subject Matter

8. Claims 8 and 10 would be allowable if rewritten or amended to overcome the rejection(s) under 35 U.S.C. 112, first paragraph, set fourth in this office action.

9. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Contact Information

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sheela C Chawan whose telephone number is. 571-272-7446. The examiner can normally be reached on Monday - Thursday 7.30 - 6.00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Eileen Lillis can be reached on 571-272-6928. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Sheela Chawan
Patent Examiner
Group Art Unit 2624
October 12, 2007


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PRIMARY EXAMINER